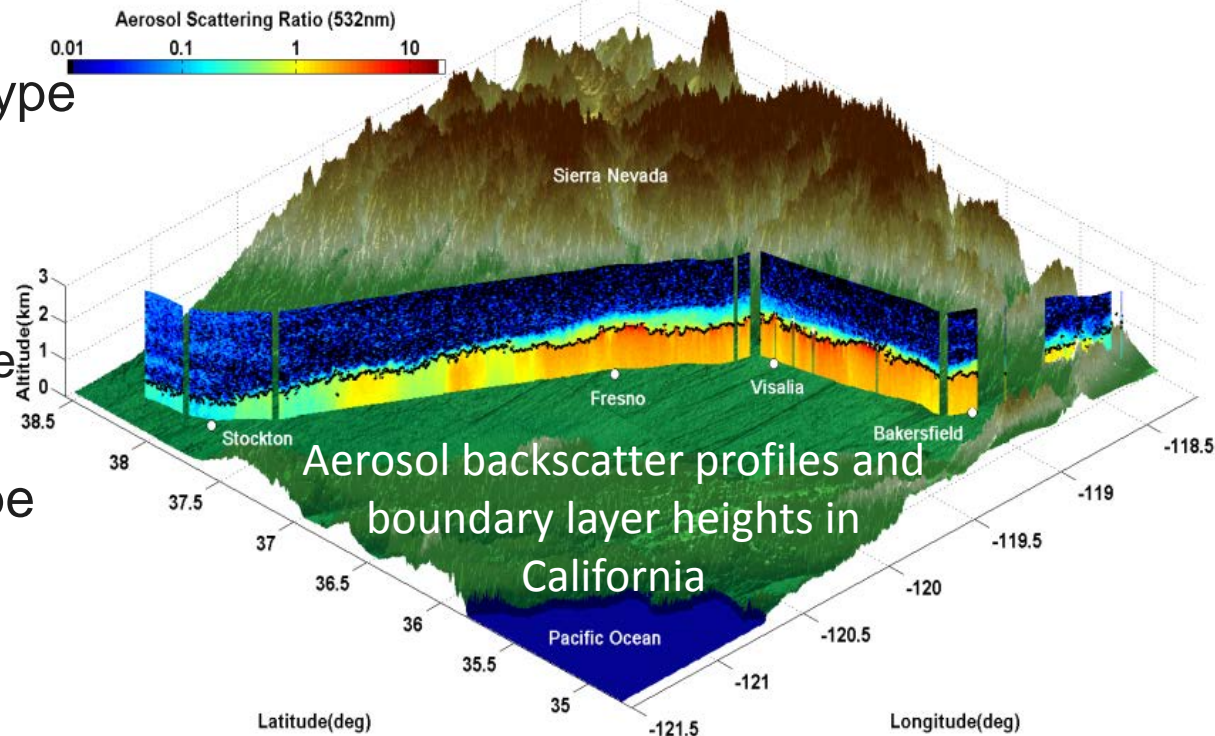


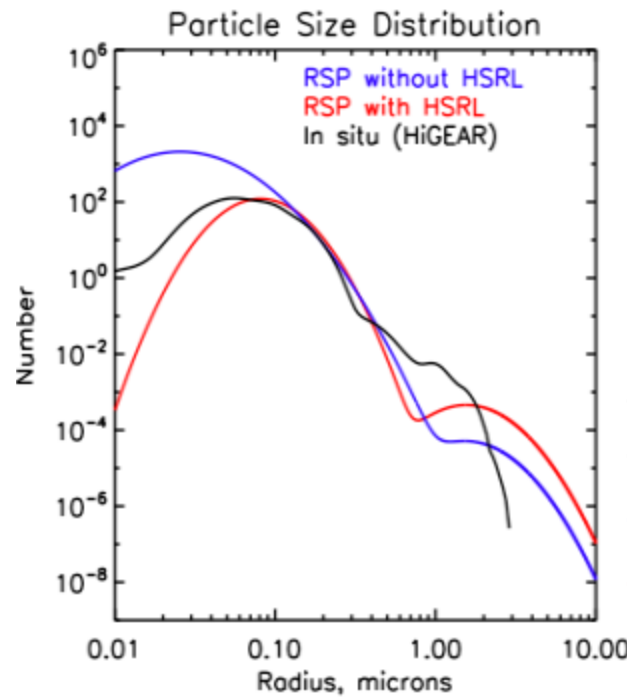
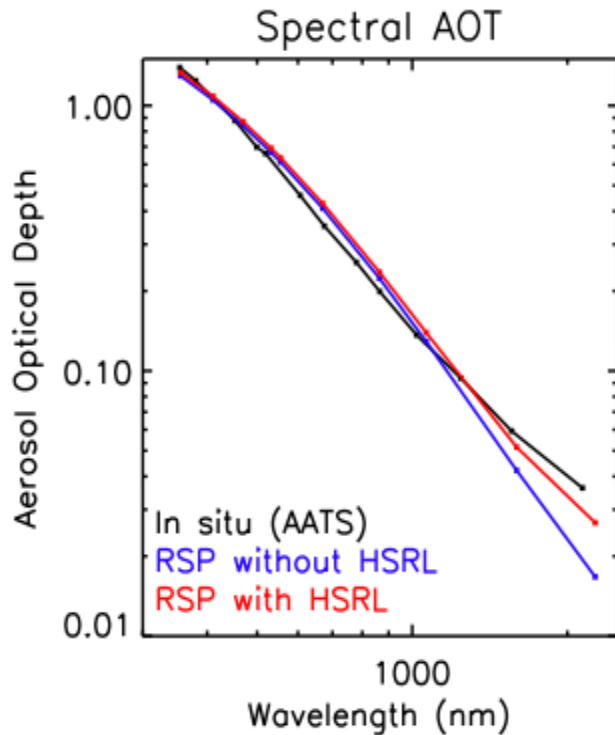
NASA High Spectral Resolution Lidar (HSRL)

- ▶ Provides vertical context to G-1 in situ measurements
- ▶ Allows for determination of aerosol type and comparisons of AOD
- ▶ Remotely measures “curtains” of aerosol properties:
- ▶ Intensive parameters – specific to each aerosol type
 - Depolarization
 - Lidar Ratio (extinction/backscatter)
 - Wavelength dependence
- ▶ Extensive parameters – dependent on aerosol type and amount
 - Backscatter
 - Extinction



NASA Research Scanning Polarimeter (RSP)

- ▶ Multi-angle measurements of light intensity and polarization
 - Aerosol Optical Depth
 - Particle Size Distribution



Single Scattering Albedo

0.94: In situ (HiGEAR)

0.91: RSP without HSRL

0.96: RSP with HSRL

See Knobelspiesse et al., *ACP* (2011)